

WHAT IS CLAIMED IS:

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1. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in the first and/or the second adhesive layer(s) and a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers or without shifting.
2. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in either one of the first and the second adhesive layers, the substance is not contained in other adhesive layer, and a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers.
3. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in the first and the second adhesive layers and the substance is not shifted from the layers to the volume hologram layer.
4. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a film for shifting a recorded wavelength is put between the first adhesive layer and the volume hologram layer or between the second adhesive layer and the volume hologram layer, a substance for shifting a recorded wavelength to the volume hologram layer is contained in one of the adhesive layers without the film, and a reproduced wavelength of hologram recorded in

the volume hologram layer is controlled with shifting the substance between the respective adhesive layer and the film as well as between the adhesive layer and the volume hologram layer ~~or without shifting.~~

~~AK~~ 5. A volume hologram laminate according to ~~any one of~~ Claims ~~1-4~~, wherein the adhesive layer is a crosslinking type two component adhesive ~~which~~ ^{that} is crosslinked at the time of use by addition of a crosslinking agent.

6. A volume hologram laminate according to ~~any one of~~ Claims ~~1-4~~, wherein the volume hologram layer comprises a photopolymerizable compound ~~and~~ the layer is recorded holographically.

7. A volume hologram laminate according to ~~any one of~~ Claims ~~1-4~~, wherein the substance for shifting a recorded wavelength is at least one compound of a photopolymerizable compound constituting the volume hologram layer, a plasticizer and a surfactant, or a tackifier ~~and~~ polyalkylene glycol.

~~Surf~~ 8. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in the first and/or the second adhesive layer(s) and a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers ~~or without shifting.~~

9. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in either one of the first and the second adhesive layers,

the substance is not contained in other adhesive layer, and a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers.

10. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in the first and the second adhesive layers and the substance is not shifted from the layers to the volume hologram layer.

11. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a film for shifting a recorded wavelength is put between the first adhesive layer and the volume hologram layer or between the second adhesive layer and the volume hologram layer, a substance for shifting a recorded wavelength to the volume hologram layer is contained in one of the adhesive layers without the film, and a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the respective adhesive layer and the film as well as between the adhesive layer and the volume hologram layer ~~or without shifting~~.

12. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance with a refractive index lower than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or the second adhesive layer(s) and a reproduced wavelength of hologram recorded in the volume hologram layer is shifted to a short wavelength side.

13. A volume hologram laminate according to Claim 12, wherein the refractive index of the substance for shifting a recorded wavelength is at least 0.1 at 25°C lower than that of the volume hologram layer.

14. A volume hologram laminate according to Claim 12, wherein the substance for shifting a recorded wavelength is at least one of silicone ^{containing} type compounds and fluorine ^{containing} type compounds.

Sub 34 15. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance with a refractive index higher than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or the second adhesive layer(s) and a reproduced wavelength of hologram recorded in the volume hologram layer is shifted to a long wavelength side.

16. A volume hologram laminate according to Claim 15, wherein the refractive index of the substance for shifting a recorded wavelength is at least 0.06 at 25°C higher than that of the volume hologram layer.

Sub 34 17. A volume hologram laminate according to Claim 15, wherein the substance for shifting a recorded wavelength is at least one of aromatic compounds, rosin type tackifiers, terpene type tackifiers and synthetic resin type tackifiers.

Sub 34 18. A volume hologram laminate according to Claim 12 ~~or 15~~, wherein the adhesive layer is formed of a crosslinking type two component adhesive ^{that} ~~which~~ is crosslinked at the time of use by addition of a crosslinking agent.

Sub 34 19. A volume hologram laminate according to Claim 12 ~~or 15~~, wherein a volume hologram layer comprises a photopolymerizable compound and the layer is recorded holographically.

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20. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance with a refractive index lower than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or the second adhesive layer(s) and a reproduced wavelength of hologram recorded in the volume hologram layer is shifted to a short wavelength side.

21. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance with a refractive index higher than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or the second adhesive layer(s) and a reproduced wavelength of hologram recorded in the volume hologram layer is shifted to a long wavelength side.

22. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on the substrate in the described order, wherein a (meth)acrylic monomer is contained in the first and/or the second adhesive layer(s), a volume hologram layer is recorded holographically with light having a single wavelength, and a half width value of a respective reproduced wavelength range is 30nm or more.

23. A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a (meth)acrylic monomer is contained in the first and/or the second adhesive layer(s), the volume hologram layer is color-recorded holographically with light having two or more wavelengths, and a half width value of a respective reproduced wavelength range is 20nm or more.

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24. A volume hologram laminate according to Claim 22 or 23, wherein the adhesive layer is a crosslinking type two component adhesive which ^{that} is crosslinked at the time of use by addition of a crosslinking agent.

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25. A volume hologram laminate according to Claim 22 or 23, wherein the volume hologram layer comprises a photopolymerizable compound and the layer is recorded holographically.

26. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a (meth)acrylic monomer is contained in the first and/or the second adhesive layer(s) and a half width value of a respective reproduced wavelength range is 30nm or more.

27. A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a (meth)acrylic monomer is contained in the first and/or the second adhesive layer(s), the volume hologram layer is color-recorded holographically with light having two or more wavelengths, and a half width value of a respective reproduced wavelength range is 20nm or more.

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